

**AMENDMENTS TO THE CLAIMS:**

This listing of claims will replace all prior versions, and listings of claims in the application:

**LISTING OF CLAIMS:**

- 1) Cancelled
- 2) Cancelled
- 3) (Previously Presented) The blending tool of **claim 22** wherein pivoting of the collision surface varies the collision profile primarily in its height dimension.
- 4) (Currently Amended) The blending tool of **claim ~~16~~**, wherein the collision surface comprises a collision plate spaced apart from the shank.
- 5) (Previously presented) An improved blending tool for rotation in a blending machine around a central drive shaft having an axis, comprising:
  - (a) a shank having a first and a second end region and having a location of attachment to the central drive shaft;
  - (b) a collision surface comprising a collision plate spaced apart from the shank and having a collision profile wherein at least one collision surface is positioned within each end region of the shank; and
  - (c) a connector mechanism pivotally connecting the collision surface to the shank at a location spaced apart from the attachment location, wherein pivoting at the connector mechanism varies the collision profile of the collision surface along a plane essentially parallel to the axis of the shaft and wherein the connector mechanism enables the collision surface to be rigidly fixed in one of a plurality of positions during rotation.

6) (Previously Presented) improved blending tool for rotation in a blending machine around a central drive shaft having an axis, comprising:

(a) a shank having a location of attachment to the central drive shaft;

(b) a collision surface comprising a collision plate spaced apart from the shank and having a collision profile;

(c) at least one arm having a first and second end wherein the first end of the arm is pivotally connected to the shank and the second end is connected to the collision plate;

(d) a connector mechanism pivotally connecting the first end of the arm to the shank at a location spaced apart from the attachment location, wherein pivoting at the connector mechanism varies the collision profile of the collision surface along a plane essentially parallel to the axis of the shaft and wherein the connector mechanism enables the collision surface to be rigidly fixed in one of a plurality of positions during rotation.

7) (Currently amended) The blending tool of **claim-16**, wherein the connector mechanism comprises a fastener that can be unfastened for disconnecting the collision surface from the shank.

8) (Previously Presented) The blending tool of **claim 6**, further comprising a fastener proximate to the first end of the arm, said fastener being capable of unfastening for disconnection of the arm and the collision plate from the shank.

9) (Currently Amended) The blending tool of **claim-16**, wherein the connector mechanism further comprises a mechanism for rigidly fixing the position of the collision surface in one of a plurality of preset positions.

(10) (Previously Presented) An improved blending tool for rotation in a blending machine around a central drive shaft, comprising:

- (a) a center shank having an x-axis orthogonal to the z-axis of rotation;
- (b) a collision surface having a collision profile;
- (c) a connector mechanism pivotably connecting the collision surface to the shank, for connecting the collision surface to the shank in one of a plurality of preset positions that are fixed during rotation of the tool such that the collision profile of the collision surface varies with different positions of connection;
- (d) at least one arm having a first and second end wherein the first end is connected to the shank and the second end is connected to the collision surface and wherein the arm has a plurality of through holes;
- (e) a central hub having a plurality of pre-set positional holes; and
- (f) a bolt for rigidly holding the arm in positional relationship to the central hub when said bolt is inserted through the hole in the arm and into an aligned positional hole on the central hub.

- 11) (Twice Amended) A blending machine, comprising:
- (a) a vessel for holding the media to be blended;
  - (b) a rotatable drive shaft having an axis, said rotatable drive shaft positioned inside of the vessel for transmitting rotational motion to the blending tool; and
  - (c) a blending tool mounted to the drive shaft inside the vessel, said blending tool comprising a shank having a location of attachment to the drive shaft, a collision surface having a collision profile and an outside edge, and a connector mechanism pivotally connecting the collision surface to the shank for connecting the collision surface to the shank at a location spaced apart from the attachment location, wherein pivoting at the connector mechanism varies the collision profile of the collision surface along a plane essentially parallel to the axis of the shaft, wherein the connector mechanism holds the collision surface in a rigidly fixed position during rotation of the tool, ~~and wherein the blending tool is sufficiently robust to withstand rotational speeds at the outside edge exceeding 50 feet per second; and~~
  - (d) a drive mechanism for rotating the drive shaft at speeds wherein the speed of the outside edge exceeds 50 feet per second.

12) Cancelled.

13) Cancelled.

14) Cancelled.

15) Cancelled.

16) Cancelled.

17) Cancelled.

18) Cancelled.

19) Cancelled.

20) (Currently Amended) The blending tool of ~~claim 16~~, wherein the shank has an end region spaced apart from the attachment location and wherein the connector mechanism connects to the shank within the end region.

21) Cancelled.

22) (Currently Amended) The blending tool of ~~claim 16~~, wherein the height of the tool is the dimension orthogonal to the plane of rotation and wherein pivoting at the connector mechanism varies the height of the collision surface.

23) (Currently Amended) The blending machine of **claim 11**, wherein the collision surface of the blending tool comprises a collision plate spaced apart and ~~flexibly~~ rigidly connected to the center shank of the blending tool during rotation of the tool.

24) (Currently Amended) ~~The~~ An improved blending tool of claim 1, wherein ~~the connector mechanism is an articulator hinge for rotation in a~~ blending machine around a central drive shaft having an axis comprising:

(a) a shank having a location of attachment to the central drive shaft;

(b) a collision surface having a collision profile and an outside edge; and

(c) an articulator hinge pivotably connecting the collision surface to the shank at a location spaced apart from the attachment location, wherein pivoting at the connector mechanism varies the collision profile of the collision surface along a plane essentially parallel to the axis of the shaft and wherein the connector mechanism enables the collision surface to be rigidly fixed in one of a plurality of positions during rotation.

25) (Currently Amended) The blending tool machine of claim 111, wherein the:

a blending motor drives rotation of the blending tool; and

the blending tool is sufficiently robust to withstand rotation by a blending motor drive mechanism producing produces specific power in excess of 0.40 kilowatts per pound.

26) (Currently Amended) The blending tool machine of claim 111, wherein the blending tool is robust enough to withstand rotational speeds at the outside edge is rotated at speeds in excess of 85 feet per second.

27) (Currently Amended) The blending tool machine of claim 111, wherein the blending tool is robust enough to withstand rotational speeds at the outside edge is rotated at speeds in excess of 95 feet per second.